

Case 21-T-0366 – Empire Wind 1 Project

Joint Proposal

August 15, 2023

Case 21-T-0366 - Application of Empire Offshore Wind LLC for a Certificate of Environmental Compatibility and Public Need for the Construction of Approximately 17.5 Miles of Transmission Lines from the Boundary of New York State Territorial Waters to a Point of Interconnection in Brooklyn, Kings County.

By:

- Empire Offshore Wind LLC
- New York State Department of Public Service
- New York State Department of Environmental Conservation
- New York State Department of State
- New York State Department of Agriculture and Markets
- New York City
- Long Island Commercial Fishing Association

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JOINT PROPOSAL

Empire Offshore Wind LLC (the Applicant), the Staff of the New York State Department of Public Service designated to represent the public interest in this proceeding (DPS Staff), the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of State (DOS), the New York State Department of Agriculture and Markets (NYSAGM), the Long Island Commercial Fishing Association (LICFA), the City of New York (City), and any other parties executing this Joint Proposal (collectively, the Signatory Parties) respectfully submit this Joint Proposal, which includes **Appendices A through L**, on the 15th day of August, 2023. The Joint Proposal and its appendices are outcome of the settlement negotiations conducted in this proceeding.

INTRODUCTION AND BACKGROUND

On June 30, 2021, the Applicant submitted its application to the Commission, in accordance with Article VII of the Public Service Law (PSL) and the Commission's regulations thereunder, for a Certificate of Environmental Compatibility and Public Need (the Application) to construct, operate and maintain the New York portion of the transmission facilities (the Project) required to interconnect the Applicant's proposed 816 MW Empire Wind 1 Offshore Wind project (EW 1) described in detail in the Application and **Appendix B** hereto.

As described in the Application, the Project consists of: (i) two three-core 230-kilovolt (kV) high-voltage alternating current (HVAC) submarine export cables (submarine export cables) from the boundary of New York State waters 3 nautical miles (5.6 kilometers) offshore to the cable landfall in Brooklyn, New York; (ii) two three-core 230-kV HVAC Empire Wind 1 onshore export cables buried underground from the cable landfall either directly to the cable terminations or to a

vault within the onshore substation (onshore export cables); (iii) an onshore substation located at the South Brooklyn Marine Terminal (SBMT) (onshore substation), which will step up the voltage to 345-kV for the onshore interconnection cables; and (iv) two 345-kV cable circuits, each with three single-core HVAC onshore interconnection cables (interconnection cables), buried underground from the onshore substation to the Point of Interconnection (POI) operated by Consolidated Edison Company of New York, Inc. (Con Edison).

The Application was accompanied by a motion, pursuant to 16 NYCRR § 3.3, seeking waivers of certain application requirements. By letter dated September 2, 2021, the Secretary to the Commission (the Secretary) identified certain deficiencies in the Application, which the Applicant addressed in an October 8, 2021 supplemental filing, as well as an additional supplemental filing submitted on January 10, 2022.

On November 24, 2021, the Commission issued an Order granting the Applicant's motion for waivers. Thereafter, by letter dated January 24, 2022, the Secretary informed the Applicant that its Application complied with PSL § 122. After the Secretary's completeness determination, the Applicant filed a supplemental Sediment Transport Analysis (Appendix B to the Application) on June 28, 2022, and a corrected version thereof on July 12, 2022, in accordance with the Commission's November 24, 2021 Order Granting Empire's Waiver Requests.

Administrative Law Judge (ALJ) Gregg Sayre, and subsequently ALJ Erika Bergen, was designated as the presiding judge in this proceeding. On January 25, 2022, the Secretary issued a Notice of Availability of Intervenor Funding, which required that all requests for intervenor funding be submitted by February 14, 2022. On January 25, 2022, the Secretary issued a Notice for a Procedural Conference to follow the Notice of Availability of Intervenor Funding. The Long Island Commercial Fishing Association (LICFA) submitted a request for intervenor funding.

Following the February 28, 2022, procedural conference, ALJ Sayre issued a Ruling Awarding Intervenor Funding. Two public statement hearings were held virtually by ALJ Sayre on April 5, 2022. Each hearing was preceded by an informational forum.

On April 1, 2022, the Applicant filed a notice of impending settlement negotiations, pursuant to 16 NYCRR § 3.9. Twenty-five settlement discussions were held on May 18, 2022, June 1, 2022, June 15, 2022, June 29, 2022, July 13, 2022, August 10, 2022, August 24, 2022, September 7, 2022, October 5, 2022, October 19, 2022, November 16, 2022, November 30, 2022, December 14, 2022, January 11, 2023, January 25, 2023, February 8, 2023, February 22, 2023, March 8, 2023, March 22, 2023, April 5, 2023, April 19, 2023, May 3, 2023, May 17, 2023, June 16, 2023, and June 29, 2023.

Based on these settlement discussions, the Signatory Parties have agreed to compromise and resolve their positions via this Joint Proposal and the attached proposed Certificate Conditions. The Signatory Parties believe that this Joint Proposal gives fair and reasonable consideration to the interests of all parties and that its approval by the Commission is in the public interest. This Joint Proposal provides additional measures that are designed to, and will, minimize impacts to the environment, public health and safety, local residents, businesses, and commercial, recreational, and other mariners. Further, the Joint Proposal aims to strike an appropriate balance to protect impacted stakeholders; represents a comprehensive resolution of all the issues raised in this proceeding and is consistent with sound environmental, social, and economic policies of the Commission and the State; and produces an outcome that is within the range of reasonable results

that would likely have arisen from a Commission decision in a litigated proceeding, as described in the settlement guidelines in Case 90-M-0255.¹

The Signatory Parties have made good faith efforts to accommodate the positions of the non-Signatory Parties.

TERMS OF THE JOINT PROPOSAL

I. General Provisions

1. The support of the Signatory Parties for this Joint Proposal is expressly conditioned upon approval by the Commission of all provisions thereof, without material change or condition. If the Commission does not adopt the terms of this Joint Proposal, the Signatory Parties are free to pursue their respective positions in this proceeding without prejudice.

2. The terms and provisions of this Joint Proposal apply solely to, and are binding only in, the context of the above-captioned PSL Article VII proceeding and do not necessarily reflect the position any Signatory Party will take in any other proceeding. Each Signatory Party reserves the right in other proceedings to propose or include such terms and conditions as it may deem appropriate.

3. The Signatory Parties agree that construction and operation of the Project described in the Application and **Appendix B** of this Joint Proposal, in compliance with the Joint Proposal and the Proposed Certificate Conditions set forth in **Appendix D**, will comply with PSL Article VII and with the substantive provisions of applicable state law referenced in the Proposed Commission Findings set forth in **Appendix C**.

¹ See Case 90-M-0255 et al., *Proceeding on Motion of Commission Concerning its Procedures for Settlement and Stipulation Agreements*, filed in C 11175, Opinion, Order and Resolution Adopting Settlement Procedures and Guidelines (Issued Mar. 24, 1992).

4. The Signatory Parties recognize that certain provisions of this Joint Proposal contemplate actions to be taken in the future to fully effectuate this Joint Proposal (*e.g.*, issuance of the Construction and Operations Plan (COP) approval by the Bureau of Ocean Energy Management (BOEM)). Accordingly, the Signatory Parties agree to cooperate with each other in good faith in participating in and refraining from taking any action(s) or position(s) in these or any other federal proceedings or approvals related to the siting or other environmental impacts of the Project that would conflict with the construction and operation of the Project as agreed to in this Joint Proposal, with the exception of the authority and responsibilities of the NYSDOS pursuant to Article 42 of the Executive Law and the federal consistency review requirements of the Coastal Zone Management Act (16 USC § 1451 *et seq.*), and responsibilities of NYSDOS and NYSDEC as cooperating agencies pursuant to the 23 CFR 645 Subpart B, and the National Environmental Policy Act 42 U.S.C. § 4321 *et. seq.* In addition, this Joint Proposal is not intended to prejudice City's decision on any matter over which it has discretionary authority.

5. The confidential settlement discussions that produced this Joint Proposal have been conducted in accordance with Rule 3.9(d) of the Commission's Rules and Regulations, 16 NYCRR § 3.9(d).

6. Except as expressly provided in Paragraph 9 of this Joint Proposal, nothing in this Joint Proposal or any attached appendices is intended to directly impose any obligations on or limit any pre-existing rights of any of the parties other than the Applicant.

7. Any disagreement over the execution of this Joint Proposal and its appendices, or implementation of any of its provisions of such documents that cannot be resolved informally among the Signatory Parties shall be resolved in the following manner:

- i. the Signatory Parties shall promptly convene a conference and make good faith attempts to resolve any such disagreement; and,
- ii. if such disagreement cannot be resolved by the Signatory Parties, any Signatory Party may petition the Commission for resolution of the disputed matter.

8. This Joint Proposal is not a waiver of the Applicant's rights to apply for additional or modified permits, approvals, or certificates from the Commission or any other agency.

9. Nothing in this Joint Proposal shall be construed as either waiving or expanding in any way the authority of any State agency or other governmental entity to enforce the laws and regulations that are the subject of its jurisdiction, except as to matters expressly preempted by Public Service Law § 130.

10. All the Signatory Parties fully support approval of the Joint Proposal in its entirety. The Signatory Parties recognize this Joint Proposal may require future actions by various parties and agree to undertake, in good faith, these future actions.

11. This Joint Proposal is being executed in counterpart originals and shall be binding on each Signatory Party when the counterparts have been executed. All signatories have the necessary authority to execute this Joint Proposal on behalf of the Signatory Party that they represent.

II. Evidentiary Record

12. **Appendix A** of this Joint Proposal lists the testimony, verifications, and exhibits agreed upon by the Signatory Parties to be admitted as record evidence in this proceeding (collectively, the Evidentiary Record). The Evidentiary Record also includes responses to information requests produced in this proceeding, and several supplemental filings.

III. Description of the Project

13. The Signatory Parties agree that the Description and Location of Project, as well as Mapping of the Project Area set forth in **Appendix B**, attached hereto, describes the proposed location and configuration of the Project to the extent such information is currently known and formed the basis of the proposed Certificate Conditions presented to the Commission for approval.

IV. Environmental Compatibility and Public Need

14. The Commission must consider several factors in making its determination of environmental compatibility and public need pursuant to PSL § 126, including the proposed facility's basis of need; the nature of probable environmental impacts; that the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations including but not limited to, the effect on agricultural lands, wetlands, parklands, and river corridors traversed; that the facility represents a minimum adverse avoids or minimizes to the extent practicable any significant adverse impact on active farming operations that produce crops, livestock and livestock products, considering the state of available technology and the nature and economics of various alternatives, and the ownership and easement rights of the impacted property; availability and impacts of alternatives and undergrounding considerations; conformance to the State's long-range plans, interests of electric system economy and reliability; conformance with State and local laws; and service of the public interest, convenience, and necessity, and other information the Commission may find useful in its assessment, are described below in detail and confirm that this Joint Proposal meets the standard in PSL § 126.

15. The resolution of each of these factors, plus other information the Commission may find useful in its assessment, are described below in detail and confirm that this Joint Proposal meets the standard in PSL § 126.

A. The Need for the Project

16. The Project will serve the public interest by, *inter alia*, contributing to State energy policy goals as set forth in the Climate Leadership and Community Protection Act, ch. 106 of the Laws of 2019 (CLCPA), and in State Energy Law § 3-101, and the Commission's Clean Energy Standard Order², diversifying the State's electric generation mix, and lowering greenhouse gas (GHG) emissions from electricity generation. In addition, the New York Independent System Operator, Inc. (NYISO) performed a System Reliability Impact Study (SRIS) which showed that the interconnection of the Project will not adversely impact the New York bulk electric system.

17. As described in Exhibit E-4 of the Application (**Appendix A**), entitled Engineering Justification, the Project will transmit electricity generated by EW 1 to the Gowanus Substation in Brooklyn, Kings County, New York, so that the Applicant can supply renewable electricity produced from its Offshore Wind Facility (located in a federal lease area) to consumers in New York State, as required by the Applicant's contract with NYSERDA.

18. As the Commission explained in establishing a program of renewable energy credits for offshore wind generating facilities selected by NYSERDA, projects like EW 1 play a crucial role in achieving New York's ambitious clean energy objectives:

The reasons for adopting an Offshore Wind procurement requirement are compelling. Achieving the State's ambitious carbon reduction goals will require contributions from a variety of sources – no single technology or

² See Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Adopting a Clean Energy Standard (Issued August 1, 2016) (CES Order).

simple formula will suffice – and offshore wind will be an essential contributor. Offshore wind addresses the transmission and siting constraints that would otherwise inhibit the development of renewable power in the downstate area, and it has a higher capacity factor than other weather-variable renewable sources of generation. It is particularly well suited for the Atlantic coast, from siting and operations to system efficiency and potential output. Clean power delivered directly to the downstate capacity zones will also have the effect of displacing local fossil generation and reducing local air contaminants.³

19. The Project will assist the State in achieving its nation-leading clean energy and environmental goals initially established forth in the CES, and modified and codified within the CLCPA. Under the CLCPA, it is the State’s goal to reduce GHG emissions from all anthropogenic sources 100% over 1990 levels by the year 2050, with an incremental target of at least a 40% reduction in climate pollution by the year 2030. The CLCPA also enacted Section 75-0107 of the Environmental Conservation Law, which requires establishment of GHG emission limits of 60% of 1990 emissions by 2030 and 15% of 1990 emissions by 2050. The CLCPA also enacted Section 66-p of the Public Service Law, which requires the Commission to establish a renewable energy program that set targets to require that 100% of the State’s electricity be emissions-free by 2040 and that 70% of the State’s electricity be generated by renewable energy resources by 2030. To help the State achieve these targets, the CLCPA requires the development of 9,000 MW of offshore wind energy by 2035.

B. Cost

20. A detailed estimate of the total capital costs of the Project (in 2021 dollars), as well as costs associated with development and permitting of the Project under Article VII, is set forth in Exhibit 9 – Cost of Proposed Facilities of the Application (**Appendix A**).

³ Case 18-E-0071, *In the Matter of Offshore Wind Energy*, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement, slip op. at 15-16 (footnotes omitted) (Issued and Effective July 12, 2018).

21. A more refined and definitive cost estimate will occur after the Certificate is issued, taking into account all Certificate Conditions and requirements of the Environmental Management & Construction Plan (EM&CP) and associated monitoring plans. Actual Project costs will be based on the final design of the Project facilities and the price of construction materials and labor at the time of construction.

22. As discussed and demonstrated in Exhibit 6 of the Application, the Project will positively affect the local economy by temporarily increasing employment and earnings in the construction industry. Construction activities are expected to directly result in an increase in local spending on construction and other materials, and the new construction workers are expected to spend some of their payroll in the local area, both increasing overall short-term demand for local goods and services and temporarily increasing local income and sales tax. It is anticipated that the Project will also provide economic benefits to New York and New York City through direct, indirect, and induced job creation, infrastructure investment, supply chain development, and savings resulting from emissions reductions.

C. Environmental Impacts of the Project

23. The Evidentiary Record describes the nature of the potential environmental impacts of the Project, which are briefly summarized below. The Project represents the minimum adverse environmental impact considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations. The proposed design maximizes the use of existing rights-of-way (ROW), avoids or minimizes the disturbance of natural habitat to the extent feasible, and minimizes potential disturbance to existing land uses, marine uses, activities, and traffic.

24. Categorized by type of impact, the following sections address the potential for environmental impacts to result from the proposed construction and operation of the Project.

i. Land Use Impacts

25. The existing land uses along the Project route consist predominately of underwater land in NYS territorial waters and highly developed urban area including and surrounding the SBMT and the Gowanus Substation.

26. Land uses adjacent to or near the onshore portions of the Project are classified as Developed, High Intensity Uses. As described in Exhibit E-4 of the Application, due to these existing land uses, the Project will not conflict with current or planned uses within the Project Area.

27. The Project will have a negligible effect, if any, on local and regional land use patterns and/or planning due to the fact that the Project's export cables will be located underwater and the EW 1 onshore cable route will be short, approximately 0.2 miles (0.3 km) long, located underground, and primarily in existing ROWs in the City of New York. The substation will be consistent with the existing land uses in the highly developed urban area.

28. Once installed, during operations, minimal impacts are anticipated to land use and zoning, as the Project's underground cables will utilize existing roads, ROWs, and infrastructure to the extent practicable, and the onshore Project is consistent with the existing land use and zoning of the area. With the exception of the onshore substation and some minor features of the onshore cables (*e.g.*, link boxes), the Project will be located underground. As such, after construction, the existing landscape, to the extent practicable, will be restored and preserved consistent with existing landscape uses, and it is not anticipated to present any excessive conflict with present or future planned uses within the Project Area.

ii. Visual Resource Impacts

29. As discussed and demonstrated in Exhibit 4 of the Application, the long-term visual impacts of the Project are anticipated to be minor as the only components of the Project that will be visible after construction during the Project's operational phase are minor features of the onshore cables (*e.g.*, link boxes), outside electrical equipment, static masts, and perimeter security fence and the onshore substation at SBMT. The submarine export and onshore cables will be placed entirely underwater or underground and will have no long-term visual effects, apart from minor features such as link boxes.

30. The Applicant conducted a viewshed analysis, field evaluation, and visual simulations to evaluate the Project's impact on visual and aesthetic resources. The results of the analysis, submitted with the Application, indicate that although there are locations where views may introduce strong contrast, the onshore substation will be sited in a heavily modified commercial and industrial development landscape setting where the facilities are consistent with the existing landscape character.

31. During construction, some increased visibility of construction equipment may occur, especially by viewers associated with commercial and industrial buildings along the east side of 2nd Avenue, Columbia Street Esplanade and in marine vessels in Gowanus Bay. Construction impacts are short-term/temporary impacts that will last only for the duration of construction.

iii. Cultural & Historical Resource Impacts

32. As discussed and demonstrated in Exhibit 4 of the Application, the Applicant, in consultation with the New York State Historic Preservation Office (NYSHPO) and interested, federally recognized Native American Nations, conducted an assessment of the existing

conditions related to the terrestrial archeological, historic and architectural, and marine archeological resources to evaluate the potential direct and indirect impacts of the Project. The following NYSHPO letters have been issued for the Project:

- i. letter of concurrence from the NYSHPO, dated December 23, 2021, DMM #21-01462
- ii. letter of concurrence from the NYSHPO, dated January 6, 2022, DMM #21-01462

33. For terrestrial archeological resources, the Applicant prepared a Phase 1A Terrestrial Archeological Survey (Appendix G of the Application) for the onshore cable route and substation; the survey concluded that the onshore cable route and onshore substation are located on filled land and recommended that no further archeological surveys be required. The Applicant submitted this report to NYSHPO on August 30, 2019. NYSHPO concurred with Applicant that no Phase IB archeological survey was needed for the onshore cable route and onshore substation.

34. For historic and architectural resources, the Applicant prepared an Analysis of Visual Effects to Historic and Architectural Properties. The Project will not require the demolition or physical alteration of any State or National Register of Historic Places (S/NRHP)-eligible or S/NRHP-listed properties. While there will be short-term visual impacts during offshore and onshore construction activities, no direct physical impacts to historic resources will occur because of construction or operation of the Project.

35. For marine archeological resources (MARs), the Applicant prepared a Marine Archeological Resources Assessment and found potential targets resembling potential submerged archeological resources within the Marine Archaeological Study Area. A Qualified Marine

Archaeologist will evaluate the submarine export cable corridor prior to final cable routing to identify avoidance of any known resources. Marine archaeological targets will be avoided by a horizontal buffer of at least 164 ft (50 m), unless further investigation and/or consultation with the appropriate authorities deems this unnecessary.

36. The survey methodology and results of the studies are described in Exhibit 4 – Environmental Impact, of the Application (**Appendix A**).

37. The Project EM&CP will identify mitigation measures with respect to cultural and historic resource impacts, including steps to be taken when archaeological materials are encountered during Project construction. In addition, the Applicant will follow the proposed Certificate Conditions (**Appendix D**, Section Q) in the event there is an unanticipated archaeological discovery during construction.

iv. Terrestrial Vegetation & Wildlife Impacts

38. Impacts to terrestrial vegetation and wildlife are anticipated to be negligible due to the developed nature of the onshore Project Area.

39. Construction-related impacts are expected to be minimal to negligible due to the high level of development and minimal habitat within the onshore areas of the Project. To avoid or minimize potential impacts to terrestrial vegetation and wildlife, the Applicant will site onshore components in previously disturbed areas, existing roadways and ROWs. The onshore construction area will be minimized to what is necessary to safely construct the Project. In addition, the Applicant will implement a soil erosion and sediment control plan and manage accidental spills or releases through a Spill Prevention, Control, and Countermeasures (SPCC) Plan.

40. No impacts to terrestrial vegetation and wildlife habitat are anticipated during operations.

v. Invasive Species

41. The Applicant will prepare an Invasive Species Management and Control Plan in accordance with the proposed Certificate Conditions set forth in **Appendix D** of this Joint Proposal, and the Invasive Species Management and Control Plan Specifications set forth in **Appendix H** of this Joint Proposal. This plan shall ensure compliance with 6 NYCRR Part 575.

vi. Impacts on Important Habitats and Protected Species

42. The Applicant will take all necessary measures described below to avoid or minimize potential impacts to threatened and endangered species.

43. No critical habitats, NYSDEC Areas of Concern, Critical Environmental Areas, NYSDOS Significant Coastal Fish and Wildlife Habitats, or Significant Natural Communities have been identified in the Project Area. One (1) Recognized Ecological Complex (REC) occurs in the Project Area in Gravesend Bay that would experience temporary disturbance during submarine cable installation and may be affected during operations. The Applicant will identify avoidance and minimization measures to be employed during construction and operations in the Gravesend Bay REC and will undertake studies of the marine fish and invertebrates along the submarine export cable route (*see* Certificate Conditions N6 and Y17).

44. As detailed in Exhibit 4 of the Application – Environmental Impact, review of data sources including the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), National Oceanic and Atmospheric Administration (NOAA) Fisheries ESA Section 7 mapper tool (2020), Stock Reports, and agency correspondence with NYSDEC identified several federal and State protected threatened and endangered species as

potentially occurring in the Project Area: the piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), roseate tern (*Sterna dougallii*), peregrine falcon (*Falco peregrinus*), North Atlantic right whale (*Eubalaena glacialis*), humpback whale (*Megaptera novaeangliae*), fin whale (*Balaenoptera physalu*), Atlantic (Kemp's) ridley sea turtle (*Lepidochelys kempii*), loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), leatherback sea turtle (*Dermochelys coriacea*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*). Avoidance, minimization, and mitigation measures, as necessary, will be implemented in accordance with the proposed Certificate Conditions set forth in **Appendix D** of this Joint Proposal, as well as specific measures described below.

45. For Atlantic and shortnose Sturgeon, the Applicant will implement an Avoidance, Monitoring, and Impact Minimization Plan and prepare a Net Conservation Benefit Plan (NCBP) as detailed in Certificate Condition I2.

46. Endangered and threatened species are protected from take under Environmental Conservation Law (ECL) § 11-0535. Permanent habitat conversion is considered a take under the ECL when it results in a permanent loss of foraging habitat (*e.g.*, placement of concrete mattresses) for an endangered or threatened species. To protect endangered and threatened species from take, the New York Harbor time of year restriction for sturgeon (*i.e.*, no work from March 1-June 30 and from October 1-November 30) should be followed to the maximum extent practicable. If any work results in or is likely to result in take of an endangered or threatened species, the Applicant must stop work in the relevant area and submit an Endangered or Threatened Species Mitigation Plan and Implementation Agreement demonstrating proposed mitigation measures that will result in a net conservation benefit to that species.

47. To minimize the potential for in-water work to impact threatened and endangered marine species, the proposed Certificate Conditions require the Applicant to comply with BOEM and NOAA requirements for mitigation, monitoring, and reporting for protected species as detailed in the federal COP approval. Further, any sightings of North Atlantic Right whales must be reported to NOAA within 24 hours.

48. According to online consultation of the USFWS IPaC, one federally listed plant species, the Seabeach amaranth (*Amaranthus pumilus*), was identified. However, this species is not expected to occur in the Project Area and was not recorded in the New York Natural Heritage Program (NYNHP) database as in the vicinity of the onshore Project Area. Therefore, it is anticipated that no impacts to threatened or endangered plant species will occur during construction of the Project.

vii. Water Quality

49. No permanent or long-term impacts on water quality from cable installation, operation, repair, maintenance, or decommissioning are expected. In addition, such activities will be performed in accordance with the proposed Certificate Conditions to avoid or minimize potential short-term water quality impacts.

50. To preserve water quality during construction and operation of the Project, proposed Certificate Condition U1 mandates that water quality standards set forth in 6 NYCRR Parts 701, 702, 703, 704, and sections 301, 302, 303, 306, and 307 of the Clean Water Act (*see* 33 U.S.C. 1311, 1312, 1313, 1313a, and 1317) will not be contravened. Further, the Applicant will comply with all conditions contained in a Water Quality Certification issued pursuant to Section 401 of the Federal Clean Water Act (33 U.S.C. 1341, *see* proposed Certificate Condition U14).

51. The proposed Certificate Conditions set forth total suspended solids (TSS) and contaminant limits to which the Applicant will adhere. The Applicant will include its TSS monitoring plan for offshore activities in a Suspended Sediment and Water Quality Monitoring Plan as part of the EM&CP. The Suspended Sediment and Water Quality Monitoring Plan will be consistent with **Appendix I** of the Joint Proposal, Suspended Sediment and Water Quality Plan Scope of Study and Certificate Conditions U4 and U6.

52. A SPCC Plan will be filed as part of the EM&CP and implemented to minimize the potential for unintended releases of petroleum and other hazardous chemicals during Project construction and operation (*see* proposed Certificate Condition V.3(a)).

53. Contaminated dredge material will be handled in accordance with proposed Certificate Condition K8 and in compliance with 6 NYCRR Part 360 et seq.

viii. Wetlands and Waterbodies

54. As detailed in “Exhibit 4 – Environmental Impact” of the Application, the area of Upper Bay adjacent to the onshore Project Area is mapped as tidal wetland, and areas of Upper Bay crossed by the submarine export cables are mapped as Littoral Zone on NYSDEC tidal wetland maps. Based on navigational charts, the submarine export cable route within the mapped tidal wetland area is located entirely within areas of water depth greater than 6 ft (1.8 m) MLW, as is water depth at the landfall; as a result, the presumption is that this area does not fall under the protection of the New York Tidal Wetlands Act. Upper Bay is classified by the National Wetlands Inventory (NWI) as E1UBLx, which indicates an estuarine subtidal system with an unconsolidated bottom, subtidal water regime, and an excavated basin or channel. Historic aerial imagery demonstrates that the bulkheads associated with SBMT are fully contiguous, in excess of 100 feet in length, and have been in place since prior to the 1960s (Aerial Archives 2020a,

2020b). However, based on discussions with NYSDEC, a portion of the Project Area underneath the existing bulkhead at the shoreline, where voids are present, may be considered jurisdictional tidal wetland, and due to the condition of the bulkhead, adjacent area may exist in the portion of the site between the bulkhead and existing jersey barriers/road on the SBMT site. Approximately 0.16 acres of this tidal wetland adjacent area, northwest of the jersey barriers, is located within the Project Area. Past that point, the adjacent area associated with the Gowanus/Upper Bay is truncated by the roadway on site, pursuant to 6 NYCRR § 661.4.

55. There are no mapped NYSDEC-regulated freshwater wetlands or NWI wetlands in the onshore Project Area.

56. Construction of the onshore facilities will occur outside of freshwater and tidal wetlands, waterbodies, and adjacent areas, and therefore will not result in direct impacts to these resources. Potential construction-related impacts associated with erosion, dewatering discharge, accidental releases, water use, and disturbance to special flood hazard areas will be short-term, minor, and avoided or minimized to the maximum extent practicable, as fully detailed in Certificate Conditions, Section P.

57. During construction, direct impacts to ocean and littoral habitats are anticipated to be minor. Sediment resuspension and deposition may have a temporary impact that is minor to moderate. Installation of the submarine export cables will result in only localized impacts that will be minimized to the maximum extent practicable using either simultaneous lay and burial or pre-lay and post-burial processes and will otherwise be minimized and mitigated (*see* Certificate Conditions J8, J9, J10, J11, J12, K3, K4).

58. During onshore operations, no new direct impacts to wetlands, waterbodies, or adjacent areas are anticipated, as Project-related operations will use permitted access roads and

entry points. There are only short-term, minor impacts on water quality from maintenance of the submarine cables or maintenance dredging, if required.

ix. Fisheries

59. Potential impacts to the fishing industry from the Project may include displacement of fishermen and the potential for fishing gear losses during construction, operation, maintenance, and decommissioning activities. However, as further outlined in section xi, as well as Certificate Conditions Sections J and Z, all in-water work shall be undertaken in a manner that minimizes the potential for interference with navigation and other water-dependent uses of the area, including but not limited to fishing, boating, and recreation.

60. The Applicant has committed to provide notice to NYSDEC-Licensed Fishermen, as well as USCG's Waterways Management Office, DPS Staff, NYSDEC, NYSDOS, NYSAGM, NYCDOT, FDNY, NYPD, NYCDEP, Joint Proposal signatories and other specified recipients with important information and updates regarding in-water work as detailed in proposed Certificate Conditions and **Appendix G** – “Mariner Notification and Public Input Process” to the Joint Proposal. All notices distributed pursuant to **Appendix G** will identify and include as appropriate: (1) the general dates of work; (2) general types of work (*e.g.*, survey, submarine cable installation, and onshore construction, etc.); (3) the general vicinity of the work, with a NOAA work zone chart with coordinates or its closest equivalent; (4) the vessel(s) conducting the work (which are subject to change); (5) accessible link to the Applicant's Project Website; and (6) contact information of an employee or agent of the Applicant who will be knowledgeable about the noticed work and able to timely contact the appropriate person(s) conducting the work. In addition, to facilitate the transmission of notice of upcoming activities, the Applicant must request updated NYSDEC-Licensed Fishermen mailing and e-mail address lists from the NYSDEC at least monthly beginning

one month prior to filing a copy of the EM&CP. The Applicant also will post any and all of the notices to its Project website.

61. The proposed Certificate Conditions contain provisions to avoid or minimize, to the extent practicable, potential impacts to fishing operations. These measures include, but are not limited to, a minimum target cable burial depth, multiple installation passes if target burial depth is not achieved initially, minimizing boulder relocation whenever possible via micro-siting, and the implementation of a Cable Monitoring and Maintenance Plan, which includes a plan for promptly remedying cable exposures and details on how to address unacceptable risks to the cable to minimize potential impacts to commercial and recreational vessel traffic.

62. In addition to the foregoing, the Applicant will submit a Fisheries Compensation Plan with the EM&CP, as outlined in proposed Certificate Condition Y16, which will provide for a claims process for commercial fisheries gear loss and compensation during all phases of the Project.

63. As detailed in proposed Certificate Conditions N5 and N6, the Applicant shall prepare a Benthic Sampling Plan and establish a Fisheries Studies Working Group that will, in part, assess the potential impacts associated with the operation of the Project on the behaviors and migratory patterns of commercially and ecologically important species along the submarine cable route.

x. Benthic Resources and Offshore Water Quality

64. Potential impacts to benthic resources during the construction of the submarine export cables and cable protection measures are mostly anticipated to be short-term and minor to moderate. During operations, there may be impacts due to minor disturbance, and/or modification of habitat and the introduction of cable protection. The Project's submarine export cables would also generate EMF during operations, and the Applicant has committed to

minimize detectable EMF by sufficiently burying the electrical cables whenever feasible and by installing cable protection measures where sufficient burial depth is not achieved.

65. Seabed disturbance from most project activities is expected produce minor direct impacts to species and minor to moderate indirect impacts to species from sediment resuspension and deposition, depending on the mobility of benthic and shellfish species. These impacts would result from pre-lay grapnel runs and installation of the Project's submarine export cables and are primarily confined to the area of direct disturbance. Benthic species are expected to recolonize the impact area following construction. Communities well adapted to disturbance within their habitats (*e.g.*, sand sheets) are expected to quickly recolonize a disturbed area, while communities not well adapted to frequent disturbance may take upwards of 3 months to 2.5 years to recolonize. The Applicant will also develop an Anchoring Plan to be provided in the EM&CP that will discuss how the use of anchoring, if any, during construction and maintenance activities will avoid and/or minimize impacts to sensitive benthic habitats (Certificate Condition J12).

66. The Project's submarine export cables will be installed and buried in a manner that minimizes habitat disruption using equipment such as a mechanical cutter, mechanical plow, jet sled, jet trencher, vertical injector, hydraulic/suction hopper dredging, mechanical dredging and/or mass flow excavator (*see* proposed Certificate Condition J10(a)). The Applicant will describe in the EM&CP how pre-sweeping (sandwave leveling) will be avoided or minimized, especially in areas with contaminated sediments. The Applicant will also describe further measures to minimize pre-sweeping during submarine export cable installation, for example, by micro-siting; and/or reducing the disturbance corridor by adjusting the equipment power, pressure, progress speed, and height above seabed (*see* proposed Certificate Condition Y12b). A pre-installation trial will be conducted for any proposed jetting tools (jet sled, jet trencher, vertical injector) and mass flow excavation tools

(Condition J14). The goal of the pre-installation trials is to establish operating conditions that will minimize the suspension of in-situ sediments and contaminants during the jetting and mass flow excavation activities.

67. Effects associated with noise are expected to be minor and short-term, with benthic resources returning to the area after the noise-generating activity has been completed. Vessel noise may cause temporary behavioral changes; however, this is not expected to be different than what currently occurs when vessels transit the area.

68. Impacts caused by sediment suspension and deposition during construction of the export cables are expected to be short-term and localized and will be minimized and monitored through the implementation of a Suspended Sediment and Water Quality Monitoring Plan that will be included in the EM&CP (*see* proposed Certificate Condition U4).

69. The proposed Certificate Conditions require the Applicant to complete benthic sampling in accordance with a Benthic Sampling Plan as part of the EM&CP. The purpose of the Benthic Sampling Plan is to establish baseline benthic conditions prior to cable installation within NYS waters and subsequently monitor post-installation benthic conditions to assess any effects from installation activities and operation of the export cable, including potential thermal and EMF impacts (*see* proposed Certificate Condition N5 and N6).

xi. EW 1 Submarine Export Cable Siting, Installation and Maintenance

70. The Project's submarine export cables will be designed and installed to meet or exceed applicable industry standards and electrical codes including, but not limited to the National Electric Safety Council and the National Electrical Manufacturers Association (*see* Exhibit E-3.2 to the Application). The submarine export cables will be installed from a specialized vessel which will install the cables from a turntable on the lay vessel. The submarine

export cable installation methodology selected for each area will depend upon a variety of factors, including seabed characteristics and target burial depths (*see* Exhibit E-3.3.1 of the Application).

71. The proposed routing, installation techniques, and operations of the Project cables in New York State have been evaluated by the state agencies in the context of the cable siting principles developed as part of the NYSERDA Offshore Wind Cable Corridor Constraints Assessment (NYSERDA 2023).⁴ As described herein and detailed in the Certificate Conditions: the proposed cable route avoids direct impacts to known in-water and onshore sensitive resources; certain unavoidable impacts to sensitive resources may occur, but these have been minimized to the extent practicable (*see* sections C.i, ii, iii, vi, ix, xiv, xv, and xvi); the Applicant employ methods to minimize the lateral separation distance between the EW 1 submarine export cables in accordance with Certificate Condition Y12(d); the Project has been sited in a manner that may enable future linear infrastructure projects to apply parallel routing; the two (2) HVAC cables will each remain bundled for their entire length in State waters; each known active and potential out-of-service cable and pipeline crossings would be crossed perpendicularly (*see* section C.xiv), and the impacts associated with these cable crossings have been minimized to the extent practicable (*see* sections C.ix, x, xi, and xiv); unavoidable impacts to anchorage areas and navigation channels have been minimized to the extent practicable (*see* section C.xiv); once onshore, the underground cables will be installed within existing ROWs, and infrastructure to the extent practicable and will use trenchless crossing methods (*see* section C.i and xiv); impacts to environmental justice area and

⁴ *See* Section 4.1 from: NYSERDA. 2023. *Offshore Wind Cable Corridor Constraints Assessment*, Final Report. Prepared by WSP USA and VHB. NYSERDA Report 23-06. Available at: <https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/2306-Offshore-Wind-Cable-Corridor-Constraints-Assessment--completeacc.pdf>. The cable siting principles identify seven (7) topics to optimize routing of multiple OSW cables in New York waters and five (5) topics for onshore routing. The siting principles are being applied to State transmission public policy and decision-making (*e.g.*, Case 22-E-0633) and are intended guide both current and future offshore wind transmission projects toward more intentional and coordinated siting practices.

disadvantaged communities have been minimized to the extent practicable with the predominantly submarine cable routing that avoids disruptions to onshore communities combined with a range of minimization and mitigation measures addressing construction, noise, lighting, and visual impacts among others (*see* sections C.i, ii, xiv, and xv).

72. The Applicant will coordinate project construction details with the USCG's Waterways Management Office to minimize navigation risks and potential disruptions to vessel traffic in New York Harbor, Narrows, New York Bay and Gravesend Bay. The Applicant, in coordination with and as directed by the USCG, will communicate this information with other maritime users of the Harbor, Narrows and Bays (*see* proposed Certificate Condition J1).

73. To minimize potential impacts to Atlantic and shortnose Sturgeon and winter flounder, construction of the Project's submarine export cable installation will comply with the work restrictions prescribed in the proposed Certificate Conditions I1 and I2.

74. Prior to the commencement of construction of the Project's submarine export cables, the Applicant will engage in certain offshore site preparation in accordance with proposed Certificate Condition J3.

75. As mentioned above, sandwave leveling will be avoided or minimized during site preparation and installation of the Project's submarine export cables.

76. Exclusive of the submarine export cable landfall at SBMT, the Project's submarine export cables will be installed as described in proposed Certificate Conditions J4 and J5.

77. Submarine export cables will be placed in such a manner that the Project will not preclude navigation during construction, operation and maintenance, except as approved in the EM&CP and coordinated with the USCG (proposed Certificate Condition J6). The Project's

submarine export cables, exclusive of the landfall, will be installed using either simultaneous lay and burial or pre-lay and post-burial processes (proposed Certificate Condition J10).

78. The Applicant will include an Anchoring Plan in the EM&CP that will discuss how the use of anchoring, if any, will avoid and/or minimize potential impacts to sensitive benthic habitats, recognized ecological complexes, historic and archeological resources and buried assets. The Anchoring Plan will also outline the parameters for the use of anchors and spuds by the Applicant and its contractors within the Project's export cable corridor and outline areas of no anchoring (proposed Certificate Condition J9). The Applicant will avoid all known sensitive benthic habitats (*i.e.*, hard bottom habitat, commercial shellfish beds, salt marsh, submerged aquatic vegetation and corals) when installing the cables in New York State waters, and will use best efforts to avoid impacts to the greatest extent practicable using micro-siting if unknown sensitive benthic habitat is encountered (proposed Certificate Condition J12).

79. Following consultation with DPS Staff, NYSDEC, and NYSDOS, the Applicant shall include a Cable Monitoring and Management Plan in the Operations and Maintenance Plan (O&M Plan) as part of the EM&CP for each applicable segment (*see* proposed Certificate Conditions N2 and N3).

xii. Decommissioning

80. Cable decommissioning will be performed in accordance with the proposed Certificate Conditions to avoid or minimize environmental impacts (*see* proposed Certificate Conditions Section Z). The Applicant will prepare and submit a Decommissioning Plan for inclusion in the EM&CP (proposed Certificate Condition Z2). An outline of the primary Decommissioning Plan is contained in **Appendix K** to this Joint Proposal. Decommissioning will be covered by appropriate letters of credit as outlined in proposed Certificate Condition Z2 and Z3.

xiii. Impacts on Topography, Geology, Soils & Groundwater

81. No permanent significant impacts related to topography, geology, soils or groundwater are anticipated from the Project.

82. Construction activities associated with the installation of the onshore substation erosion control measures outlined in the Project Stormwater Pollution Prevention Plan (SWPPP) and EM&CP will be utilized during construction to reduce the risk of soil erosion, fugitive dust from exposed soil and siltation.

83. Overall, construction and operation of the Project is not expected to result in significant or adverse cumulative effects to topographic and soil conditions within the Project Area because of the highly developed nature of the onshore Project Area. It is not anticipated that operation and maintenance activities will cause disturbance to topography, geology, soils, or groundwater.

84. The Applicant will specify measures to minimize disturbance of soils and topography along the Project in the EM&CP.

xiv. Transportation Impacts

85. The anticipated effects of Project construction and operation on airports, railroads, the marine transportation system, and roadways are described in Exhibit E-6 of the Application (**Appendix A**) and summarized below. The Project is anticipated to result in minor to moderate impacts to navigation and vessel traffic and will have no discernible permanent impact on the other transportation systems.

86. There are three (3) airports, twenty-two (22) heliports and two (2) seaplane bases within ten (10) miles of the Project ROW. Construction and operation of the Project will not impact air transportation activities. Obstruction evaluations will be completed pursuant to the

Federal Aviation Administration (FAA) criteria enumerated in 14 CFR Section 77 Subpart C, and the Applicant will submit the results of the evaluations to the Secretary prior to commencement of construction in specific EM&CP segments.

87. The Project will cross the railroad tracks where the New York New Jersey Railroad (NYNJRR) provides rail service to the Sims Municipal Recycling facility; however, the Applicant is proposing to use trenchless construction (jack and bore installation) to cross the railroad tracks. Trenchless construction would avoid interference with the railroad tracks and active rail service, and the Applicant will coordinate with applicable stakeholders regarding requirements for the crossing. The Project's submarine export cable corridor would also cross the NYNJRR carfloat route; however, construction activities will be coordinated to minimize potential disruption to marine transportation.

88. The Project's submarine export cables will be installed within the largest port complex on the East Coast where extensive commercial, private, and government vessel traffic navigates to and from domestic and international ports. The cable route transits from the 3.0 nm (5.6 km) state boundary generally northwest into Lower New York Bay, traversing Gravesend Bay and through the Narrows under the Verrazzano-Narrows Bridge. From there, the Project's submarine export cable route heads northeast into the Upper New York Bay. This area is heavily traversed by commercial and recreational vessels throughout the year. Within the Project area, there are federal navigation channels, anchorages, marine bases and access points for governmental entities, and navigational channels for commercial shipping, recreational use, and other maritime users, as well as passenger ferry routes used for commuting and recreation.

89. There are 29 ferry terminals located within 5.0 mi (8.0 km) of the Project in Lower New York Bay and Upper New York Bay. There are four terminals located within the vicinity

of the Project's submarine export cables and cable landfall in Upper New York Bay (*See* Table E-6.5-1 of Exhibit E-6 of the Application (**Appendix A**)).

90. The Project's submarine export cable route has been carefully sited and will be coordinated to minimize impacts to the maritime transportation system and the region's commercial and recreational mariners as reflected in Proposed Certificate Conditions in Sections D, J, Y, and **Appendix G**. The submarine export cable route has been designed to avoid the Ambrose Channel, the primary route in and out of the Harbor, by paralleling the channel through Upper and Lower New York Bays. The cables will be installed a sufficient lateral distance to avoid impacting the integrity of the Ambrose Channel or its side slopes during operations and/or cable repair activities (Certificate Condition J7). Additionally, there are two discrete segments where the Project's submarine export cable route is anticipated to cross federally designated anchorages or channels: Gravesend Anchorage Area and the Bay Ridge Channel. Impacts to the anchorage area were minimized by siting the cables in a location where less frequent anchoring activity occurs. The Applicant will minimize the risk of interactions by burying the cables at least 15ft deep in these locations, monitoring the cables throughout operations, and undertaking remedial burial as needed. The cables will be installed within the Bay Ridge Channel, but this too was unavoidable because the proposed landfall and interconnection at the Gowanus substation is only accessible by water via the Bay Ridge Channel. Finally, the Applicant will make the necessary submissions to the applicable governmental agencies so that the authorized cable corridor is available on NOAA Electronic Navigation Charts prior to the start of construction and later updated with the as-built cable locations so that mariners can proceed with caution through these areas.

91. Potential direct impacts to marine navigation associated with the Project's submarine export cable installation, operations and maintenance are anticipated to be short-term and localized. During construction, there will be an increase in Project vessel traffic which increases vessel navigation risks and could cause delays for commercial shipping and fishing or recreational vessels due to safety zones, route deviations, and/or obstructing waterborne access to certain facilities. All in-water installation and maintenance activities will be closely coordinated with the USCG and USACE; and Local Notice to Mariners will be posted as required. In-water activities will also be coordinated with New York Waterway to avoid or minimize conflicts with ferry schedules. Vessels will be allowed to continue to move through the navigation channels safely and efficiently during construction, operation and maintenance of the Project in accordance with Certificate Condition J6.

92. Several charted cables and pipelines are crossed by the Project within New York State waters. Northwest of the New York State waters boundary, the submarine export cable route crosses southeast to northwest through a charted pipeline area (approximately 1,240 ft [378 m]). The submarine export cable route also crosses several pipeline areas west of Brooklyn.

93. West of Coney Island and southwest of Gravesend Bay, the Project's submarine export cable route perpendicularly crosses (south-north) through an approximately 2,400-ft (732-m) NOAA charted cable area, roughly linking Swinburn Island and Norton Point on Coney Island. There is no evidence in the USACE survey data of scars from cable installation or any operational changes to the maintenance dredging by the USACE at this location. South of the Verrazzano-Narrows Bridge, the submarine export cable route perpendicularly (south-north) crosses an approximately 3,100-ft (945-m) cable area.

94. There are approximately 19 known active and potential out-of-service cable and pipeline crossings, which have been identified in Project survey activities or through permit review. The Applicant continues to consult with asset owners to confirm the locations of submarine cable assets, including any active and out-of-service cables and pipelines and will use good faith efforts to enter into bilateral infrastructure crossing, encroachment, cost reimbursement or other agreements with Third-Party Infrastructure owners using the processes described in proposed Certificate Condition Section H. If the Applicant does not [or cannot] execute an agreement with a Third Party Infrastructure owner, the Applicant will notify the Department of Public Service at least thirty (30) days prior to any construction activities at the site of the encroachment or crossing of the existing utility and provide an update of the Applicant's good faith efforts with such Third-Party Infrastructure owners to reach a Crossing Agreement or obtain a Letter of No Objection, as described in proposed Certificate Condition H1(c).

95. Based on review of available data sources, eleven (11) potential existing or out-of-service cable crossings have been identified within New York State waters. In addition to these identified potential asset crossings, the proposed Poseidon Transmission Cable (HVDC) is documented to closely follow the Neptune cable route and would also be crossed in a similar orientation, if installed before Project construction. The Bayonne Energy Center to Gowanus Gas Turbines 345 kV cables are to the north of the Project and are not crossed by the submarine export cable route.

96. Eight pipeline crossings in New York State waters have been identified. The route also crosses the location of the planned Transco Raritan Bay Loop pipeline project.

97. Where other infrastructure crossings are required, the specific crossing methodology will be developed and engineered as the submarine export cable routes become finalized. The Applicant will comply with Section H of the proposed Certificate Conditions, which addresses all utility crossings including pipeline crossings. Pipeline crossings will typically require a physical separation, such as a concrete mattress or an exterior protection product installed on the cable. Upon completion of installation activities, the submarine export cables are not anticipated to impact marine navigation during operations, since the submarine export cables will be buried beneath the seafloor or will employ cable protection measures in limited areas where sufficient cable burial is not feasible.

98. The Project's onshore interconnection cable route travels from the onshore substation to the POI at Con Edison's existing 345-kV Gowanus Substation. Leaving SBMT, the interconnection cable route crosses 28th and 29th Street and continues northeast towards the 345-kV Gowanus Substation via 2nd Avenue.

99. During construction, the potential impact-producing factors to existing roadways will include construction of the onshore components, including onshore cables, duct banks and splice bays, and construction of the new onshore substation. An increase in Project-related construction, support, and workforce vehicle traffic is anticipated during construction. Construction crews and equipment will utilize existing roadway systems for the interconnection cable installation and to access SBMT for the cable landfall transition, onshore export cable installation, and onshore substation construction. The potential impact of construction vehicle traffic on land transportation and local traffic during construction activities is anticipated to be minor, and similar in nature to other utility installations or road improvement work carried out in these locations.

100. The Project’s onshore cable route does not cross the subway or bus routes, so no operational impacts to bus systems are anticipated. Installation of the onshore interconnection cables in 29th Street and 2nd Avenue could result in the temporary closure of roads or some traffic lanes during construction. Roadways would be closed and/or blocked for only short periods of time to allow for local vehicular traffic patterns to be maintained to the greatest extent practicable. Should road or lane closures be necessary, the Applicant’s contractor will use traffic control measures, such as signage and traffic flaggers, to ensure safety. Moreover, a Traffic Management Plan (TMP) will be developed and provided as part of the Project’s EM&CP, and will address the management of roadway transportation. The Applicant shall consult with the NYC Department of Education prior to the commencement of construction and will include the outcome of that consultation, as well as any traffic-related measures taken by the Applicant based on that consultation, in the Traffic Management Plan. The Applicant will also coordinate with New York City Department of Transportation (NYCDOT) officials to schedule closures to reduce impacts to roadway traffic and to avoid peak hours. However, given the short length of the interconnection cables to be installed at the terminus of 2nd Avenue, these impacts are anticipated to be minor and localized. The Applicant does not anticipate any discernable impact to traffic because of Project operation.

xv. Noise Impacts

101. The Applicant’s audible noise analysis, submitted with “Exhibit 4 – Environmental Impact”, of the Application (**Appendix A**), and associated supplemental filings, examined potential noise impacts from the construction and operation of the Project, including vessel activities associated with submarine export cable installation and the construction and operation of the onshore substation.

102. Noise-level changes from the proposed Project's construction activity will be minimal. Construction noise will be temporary and vary greatly depending on factors such as the type of equipment, the specific equipment model, the operations being performed, and the overall condition of the equipment. Sound generated by vessels associated with the installation of the submarine export cables is expected to be short-term and low level due to the distance from shore, and is not anticipated to cause any significant noise impact in the communities along the shoreline. Due to the temporary nature of the construction activities and use of best practices with regards to controlling construction noise in the direction of noise sensitive areas, no adverse impacts with respect to construction noise are anticipated.

103. The noise-generating operational component of the Project consists of the onshore substation. No operational sound is expected from the submarine export cables or onshore cables.

104. Sound from substation operation was modeled and assessed relative to the 7 dBA incremental increase criterion prescribed by the New York City Administrative Code and the octave band sound limits prescribed by both the City's Zoning Resolution and the Code.

105. The Project will comply with the applicable New York City regulations and local ordinances, *e.g.*, Sections 42-213 and 42-214 of the City's Zoning resolution and Section 24-232 of the City of New York Noise Code Regulations (*see*, Appendix D, Y8); Section § 42-21 (Performance Standards Regulating Noise) of the New York City Zoning Resolution for residences existing as of the date the Certificate Order is issued as noted. Noise guidelines and recommendations provided by DPS Staff were also considered in the assessment of potential noise impacts associated with substation operation at nearby Noise Sensitive Areas (NSAs). Moreover, the Applicant will provide details of noise control and mitigation measures within the

applicable Segments of the EM&CP. The Applicant will provide updated noise modeling prior to the start of construction in accordance with Condition Y8 .

xv. Communications Impacts

106. The Applicant's review of Federal Communication Commission databases identified two hundred twenty-four (224) registered communications antennas and/or commercial towers within 1.0 mile of the Project. As more fully described in Exhibit E-5 of the Application (**Appendix A**), the Project is not expected to result in any significant interference with radio, television, cellular phone reception, railway signaling and communications, or microwave transmissions. If interference with communications is reported along the Project ROW, the Applicant will take appropriate action to address such interference.

107. The Applicant will comply with applicable provisions of the National Electrical Safety Code related to appropriate spacing between the proposed transmission lines and communication facilities and has designed the transmission lines to minimize corona effects. The Applicant will follow the "Call Before You Dig" protocol and contact potential third-party underground communication cable operators to confirm the locations of any underground communication facilities that would be within or crossed by the ROW. If underground communication facilities that have not been previously identified are found within the vicinity of the Project, the Applicant will ensure that appropriate clearances and interference protection are added.

xvi. Electric & Magnetic Fields

108. The Commission requires compliance with a not-to-exceed electric-field limit of 1.6 kV/m at the ROW edge of new transmission lines as established in Opinion No. 78-13, issued June 19, 1978. The Project's transmission lines will not be a direct source of any above-ground

electric fields since the Project's cables will all be underwater or underground. Any electric field induced by the magnetic field will be *de minimis* and below the Commission limit.

109. As part of the Article VII Application, the maximum post-construction magnetic-field level at ± 15 ft (± 4.6 m) from the EW 1 submarine export cable, and ± 12.5 ft (± 3.8 m) from the onshore interconnection cable centerline (*i.e.*, the ROW edge) were calculated for all modeled configurations to be below the Commission standard of 200 milligauss (mG) for magnetic fields established in its Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, issued September 11, 1990.

110. The Certificate Conditions also require the Certificate Holder to conduct an AC Magnetic Field Study associated with the operation of both onshore and offshore cables in accordance with Certificate Condition N1. to correlate the relationship between EMF level and wind farm output. The AC Magnetic Field Study will include a tabular summary of the known biological sensitivities of marine species common in the Project area for comparison and assessment of potential Project impacts on marine resources. The AC Magnetic Field Study will also include post-construction bathymetric measurements to analyze the location of the cables for any deviations that could potentially cause the cables to exceed stated cable ratings, cable current flow monitoring, and magnetic field calculations and measurements at locations to include crossings of other submarine electric cables.

D. Availability and Impact of Alternatives

111. The Evidentiary Record describes the availability and impact of alternatives to the Project and are briefly summarized below.

112. The "no action" alternative is not the preferred viable option as the Project would not be built, the Offshore Renewable Energy Certificate (OREC) contract between Applicant

and NYSERDA would not be fulfilled, and the Project's purpose to provide renewable energy generation from offshore wind in furtherance of New York's renewable energy mandates and goals would not be met.

i. Alternative Routes

113. The Applicant conducted a detailed analysis of Project alternatives to connect the offshore Lease Area to the POI. The Applicant evaluated siting alternatives for the submarine export cable route, onshore substation location, export cable landfall, and onshore cable route to interconnect with the POI relative to constructability, reliability, environmental resources, and stakeholder impact criteria.

114. Exhibit 3 of the Application provides a description and evaluation of these alternatives, including a description of the comparative merits and detriments of each alternative and an explanation of why the Applicant believes the proposed route is best suited for the Project.

115. The Applicant evaluated five submarine cable route alternatives in New York State waters for the Project, one route alternative that enters New York State waters from New Jersey waters and four alternatives that consider different routes in the area of Gravesend Bay.

116. Based on the Applicant's assessment of evaluation criteria, including physical route characteristics, the presence of seabed and human constructed hazards and/or use conflicts, biological resources, cultural resources, and high-impact fishing areas, Submarine Export Cable Alternative 5 (as defined and explained in Exhibit 3 of the Application) is the preferred submarine export cable route alternative for the Project.

ii. Alternative Substation Locations and Other Technologies

117. The Applicant evaluated installing 345-kV submarine export cables to shore as an alternative to constructing an onshore substation and determined doing so is not practicable. The

number and spacing requirements would make the required installation corridor width impracticable for the submarine export cable installation along this route. Moreover, installing 345-kV submarine export cables would produce excessive reactive power, and onshore equipment would still be required to connect into the POI. For these reasons, an onshore substation is the only practicable alternative.

118. Evaluation of the POI at the 345-kV Gowanus Substation indicated that an additional site would be required for an onshore substation to support the Project's 230/345 kV transformers and related equipment, due to insufficient space within the existing 345-kV Gowanus Substation.

119. The Applicant assessed four onshore substation sites: the 65th Street Railyard site, the Sunset Park Pier, the Narrows Generating Station site and SBMT.

120. The assessment of the selection criteria demonstrate that SBMT is the most suitable, preferred alternative for construction of the new onshore substation for the Project. All other sites are farther from the POI and have additional challenges associated with site use or redevelopment plan compatibility, available space, land acquisition, constructability, and/or environmental impacts.

iii. Alternative Cable Landfall and Onshore Cable Routes

121. To identify the preferred cable landfall site, the Applicant conducted coastal and waterfront engineering analyses of the risks and benefits of potential cable landfall locations at multiple sites in New York.

122. In evaluating onshore cable routes, the Applicant considered potential landfall alternatives in Coney Island and along Gravesend Bay, as well as four cable landfall sites to the

north (at the Verrazzano-Narrows Bridge, the 65th Street Railyard, the Narrows Generating Station, and SBMT), along with associated routes from these cable landfall sites to the POI.

123. Based on the assessment of construction feasibility of an open cut landfall methodology, consistency with existing land use and future development, site availability at SBMT, and minimization of construction-related impacts to local stakeholders and the environment from noise and traffic, the SBMT is a reasonable and the preferred alternative.

iv. Alternative Technologies

124. The Applicant assessed a variety of alternative facility designs, installation methods, and technologies.

125. The Applicant's assessment of these alternatives (for detail, please see Application, Exhibit 3) indicates that the Applicant is using appropriate technologies for the installation of submarine export cable and that the Applicant is using appropriate cable burial technologies for the installation of the submarine cables.

126. The assessment also indicates that the Applicant is using appropriate technologies for cable landfall installation, and that HDD installation of cable landfall at SBMT would not be reasonable for the Project because the depth required for installation would exceed the depth limitations of the export cables. For further detail on why HDD installation is not found reasonable, please see Application, Exhibit 3, p 3-23.

127. The Applicant evaluated various methods for installing the submarine export cables across third-party assets and determined that using concrete or rock-filled mattresses or rock berm protection are reasonable methods, as described further in Exhibit E-3 of the Application. Given the risks and challenges associated with the site soils, the low anticipated bearing capacity of the site soils, and difficulties laying the export cables through the casing pipe, a microtunnel

construction alternative is not a reasonable crossing method. A pile-supported bridging crossing would require driving piles to either side of the asset crossing, and significant trench dredging. Seabed impacts, as well as potential underwater noise impacts, would be greater than with the preferred solutions. This alternative method is also more labor-intensive and costly than traditional crossing methods. For these reasons, a pile-supported bridge crossing is not a reasonable solution for the Project.

128. Sulfur hexafluoride (SF₆) is a statutorily defined GHG under the CLCPA (ECL § 75-0101(7)), and is thus part of the statewide GHG emission limits. *See* ECL § 75-0107; 6 NYCRR Part 496. The Applicant acknowledges that SF₆ is most frequently used for electric insulation and/or arc-quenching in gas-insulated equipment (GIE) such as switchgears, switches, circuit switchers, gas-insulated substations, and circuit breakers. The Applicant evaluated gas-insulated and air-insulated equipment options for the design of the onshore substation. Due to existing technology and availability, the Applicant placed an order with a supplier for GIE with an annual SF₆ emission rate of 1% or less for the Project (Project GIE), which is in compliance with all applicable laws and regulations relating to SF₆ currently in effect. To the extent the installation of SF₆ in GIE is prohibited by applicable law or regulation that will come into effect before the Applicant installs any SF₆-containing Project GIE, the Applicant may avail itself of any applicable exception, variance or grandfathering provision provided for in any law or regulation applicable to SF₆ in GIE.

129. The Applicant compared underground installation of the onshore cables for the Project with aboveground installation of overhead transmission lines. Based on the proposed location of the onshore cable route within a highly developed urban area, underground installation of the onshore cables is preferred due to the reduction in visual impacts and the

ability to use the existing roadway corridors for installation. The use of overhead cables would likely require additional negotiation for property rights and would be space-limited for the corridors under consideration. Additionally, although the initial installation cost and duration for overhead transmission lines is typically lower than installing underground cables, overhead transmission lines and associated transmission structures are more vulnerable to impacts during storms and flood events, reducing system reliability and requiring more frequent maintenance than underground cables. For all of these reasons, an underground transmission system is preferred for the Project.

A. Conformance of the Project to Long-Range Plans the State’s Electric Power Grid

130. The Project conforms to the requirements of the NYISO and is consistent with New York’s long-range plans as required by PSL § 126.1(e)(2) (*see infra* Paragraph 129), and will serve the interests of electric system economy and reliability. The Project will assist the State in achieving its nation-leading clean energy and environmental goals.

B. System Reliability Impact Study

131. A System Reliability Impact Study (SRIS) was completed as required by 16 NYCRR § 88.4(a)(4). The SRIS was conducted in accordance with the applicable North America Electric Reliability Corporation, Northeast Power Coordinating Council, NYISO, New York State Reliability Council, NYISO, and affected system(s) reliability and design standards, study guidelines, procedures and practices. The SRIS was approved by the NYISO Operating Committee on August 7, 2019.

C. State and Local Laws

132. The Project, as proposed in this Joint Proposal and subject to the proposed Certificate Conditions in **Appendix D**, fully complies with the substantive provisions of all

current applicable state laws, including without limitation the PSL, the Environmental Conservation Law, and the Agriculture and Markets Law.

133. The CLCPA seeks to equitably reduce statewide GHG emissions. As such, § 7(3) of the CLCPA requires that state agencies evaluate the potential impact on GHG emissions and disadvantaged communities “in considering and issuing permits, licenses, and other administrative approvals and decisions”; which includes the approval of Article VII Certificates. While the majority of the transmission line would be located outside of disadvantaged communities, the cable landfall and onshore portion of the Project area is located within an area identified as a potential environmental justice area, as defined by the NYSDEC, and mapped disadvantaged community. Additionally, the project area is adjacent to and proximal to numerous mapped disadvantaged communities. The Applicant has consulted with community-based organizations and leaders, elected officials, business owners, and other citizens (including local residents and property owners) in the community since the process for considering potential cable landfall locations began. The Applicant has considered environmental justice areas in its stakeholder engagement program and continues to implement its Public Involvement Plan, included as Appendix D of the Application to address concerns and minimize impacts within the community and adjacent communities. The Project would not result in significant adverse impacts in any of the impact analysis areas discussed in Exhibit 4 of the Application. The Project is anticipated to result in job and economic benefits for the local disadvantaged and environmental justice communities. As described in Exhibit 6 of the Article VII Application, the Project will contribute to the local economy with job opportunities in the offshore wind industry, particularly New York’s low-income and environmental justice communities. The Project would provide growth-inducing economic benefits to the

communities through direct, indirect, and induced job creation, infrastructure investment and supply chain development. Moreover, the Project is expected to result in GHG and emissions reductions that will confer a long-term benefit in improved air quality and avoided health impacts. There will be temporary impacts associated with the construction of the Project. However, these temporary impacts will be minimized to the extent practicable through adherence to the Certificate Conditions and compliance with applicable local laws and regulations. The impacts on the communities will be further minimized because onshore construction activities will be confined to the South Brooklyn Marine Terminal, existing city streets or ROWs, and a nearby Con Edison substation, and they are expected to have a relatively short duration. On balance, these temporary impacts are outweighed by air quality improvements, and other benefits to be realized once the Project commences commercial operations. Accordingly, this Project would not disproportionately burden the disadvantaged communities.

134. Due to the preemptive effect of PSL § 130, procedural requirements to obtain any State or local approval, official review, consent, permit, certificate or other condition for the construction or operation of the Project do not apply except for permits or approvals issued or required by the NYSDEC pursuant to regulations implementing federally delegated environmental programs, those provided by otherwise applicable state law for the protection of employees engaged in construction and operation of the Project, and those approvals expressly authorized in the Certificate Conditions attached as **Appendix D** of this Joint Proposal and set forth in Revised Exhibit 7 (**Appendix A**).

135. Revised Exhibit 7 of the Application (**Appendix A**) identifies substantive New York City provisions of local law potentially applicable to the Project, as well as provisions of

local law that the Applicant requests that the Commission not apply because, as applied to the Project, such provisions of local law are unreasonably restrictive in view of the existing technology, factors of costs or economics, or the needs of consumers.

D. Public Interest, Convenience and Necessity

136. The Applicant conducted public outreach regarding the Application, including letters to and meetings with local officials in areas affected by the Project, letters to property owners abutting the Project ROW and meetings with groups interested in the Project. The Applicant has been meeting with Article VII stakeholders since prior to acquiring the Empire Wind Lease Area in 2016 and will continue to organize and engage in such meetings in-person and via e-mail, videoconference, and/or phone to share Project status updates and to receive feedback. The Applicant has conducted extensive outreach in the community and with elected leaders in New York City prior to submittal of the Article VII application.

137. Additional outreach has also been conducted for the Project as part of the processes established by the Commission, NYSERDA, by BOEM, and as part of the overall development of the EW 1 Project. Outreach has included a series of open houses, workshops, and public meetings in various communities in the vicinity of the Project and virtually.

138. The Applicant will provide informational materials to elected officials for distribution to their constituents.

139. All future public notices will be prepared in compliance with all applicable regulations. Applicant, at minimum, published a statement of Article VII Notice once a week for two consecutive weeks prior to the filing of the Article VII Application, in newspapers of general circulation in all the areas within New York City through which the Project would pass, both as primarily and alternatively proposed. Notices of public meetings and Project filings such

as the Application and the Environmental Management and Construction Plan have been or will be published in, at minimum, the Brooklyn Eagle, Brooklyn Home Reporter, Bay News/Brooklyn Graphic, Bay Ridge Courier and Park Slope Courier, the newspapers of record in the Project Area. Notices will also be posted on the Project website.

140. On June 21, 2021, the Applicant provided written notice of the Article VII Application filing by sending a notification letter sent via first-class postal mail to affected landowners as defined under PSL § 120, as well as to property owners with property abutting the proposed onshore cable corridor, onshore substation or shoreline properties within 1,200 feet of the submarine export cable route. This written notice provided recipients with information on how to request party status during the Article VII proceedings, as well as how recipients can access and view Project filings and communicate with the Applicant.

141. The Applicant has also created easy to access and use information for the public to learn about the Project such as a general fact sheet and interactive website.

142. The Applicant has conducted satisfactory public outreach.

V. PROPOSED FINDINGS

143. The Signatory Parties agree that the record in this proceeding supports all of the Commission findings required by PSL § 126 and as set out in **Appendix C** to this Joint Proposal.

VI. PROPOSED CERTIFICATE CONDITIONS

144. The Signatory Parties agree that the proposed Certificate Conditions set forth in **Appendix D** to this Joint Proposal are acceptable and appropriate for inclusion in a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of the Project as described therein and in this Joint Proposal.

VII. ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN GUIDELINES

145. The Signatory Parties recommend that the Commission find that the specifications for development of the EM&CP set forth in **Appendix E** of this Joint Proposal, the supplemental specifications with respect to invasive species set forth in **Appendix H**, the specifications for computer noise modeling and tonality assessment set forth in **Appendix J**, and the NYSDEC supplemental specifications for wetlands and waterbodies set forth in **Appendix L** of this Joint Proposal are acceptable and appropriate for application to the Project as described herein.

VIII. WATER QUALITY CERTIFICATION

146. The Commission should find that the record in this proceeding supports the issuance of a 401 Water Quality Certification, provided the Applicant complies with applicable federal and state regulations.

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.

David McSweeney

Empire Offshore Wind LLC

By: David McSweeney
Senior Counsel / Empire Offshore Wind LLC
Date: July 18, 2023

Ekin Senlet

Empire Offshore Wind LLC

By: Ekin Senlet
Barclay Damon LLP

Counsel for Empire Offshore Wind LLC
Date: July 18, 2023

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.



Staff of the New York State Department of Public Service designated to represent the public interest in this proceeding

By: Heather Behnke, Assistant Counsel
Date: August 15, 2023



Staff of the New York State Department of Public Service designated to represent the public interest in this proceeding

By: Nicholas Forst, Assistant Counsel
Date: August 15, 2023

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.

W.D. Sanza

**New York State Department of Environmental
Conservation**

By: Mark Sanza, Deputy Counsel

Date: *July 31, 2023*

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.



New York State Department of State

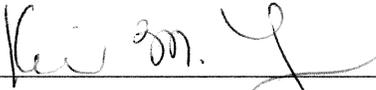
By: Mark Pattison, Deputy Secretary of State for Local
Government

Date: 7/31/2023

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.

CITY OF NEW YORK



By: Kevin M. Lang, Esq
COUCH WHITE, LLP
Counsel for the City of New York

Date: August 7, 2023

PSC Case No.: 21-T-0366 - Empire Offshore Wind LLC / Empire Wind 1 Project

IN WITNESS WHEREOF, the Signatory Parties to this Joint Proposal have this day signed and executed this Joint Proposal.



Long Island Commercial Fishing Association

By: Bonnie Brady, Executive Director
Date: